

VGuard N Series

16/8/4 Channels Embedded Net DVR

User's Manual



Please read this user's manual carefully before you use this system.
Please keep a user's manual handy when needed.





警告

請勿將設備置放於雨中或潮濕的環境中以避免火災或電線短路之發生。



請注意

請勿打開外蓋。本設備內部並無任何使用者應負責維修保養之零件。
若有任何相關問題請逕向維修服務人員詢問。

Note:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

The changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Declaration :

All the specification mentioned in this user's manual is based on the products when this user's manual is published. Manufacturer owns the right to alter or change this product with or without notification. All the products specification will base on the product itself.

Chapter 1 :	System Specification.....	6
1.1	System Hardware Specification:	6
1.2	System Function Specification:	7
1.3	Package Content:	8
Chapter 2 :	System Introduction:	9
2.1	System Front Panel:	9
	USB.....	9
	Number 1-8 Buttons.....	9
	Number 9 Button.....	10
	Number 0 Button.....	10
	Power Indicator ( )	10
	Recording Indicator ( )	10
	Playback Indicator ( )	10
	Record/ Switch to Recording Display Button:.....	10
	Setting / List Button	10
	Leftward Button / Playback Backward.....	11
	Upward button / Step Playback / Pause Playback	11
	Rightward Button / Playback Forward / Output Control	11
	Select / Backup Button.....	11
	Playback Button	11
	Subtract 1 / Next / Slow Speed Playback	12
	Downward Button / PIP Function.....	12
	Add 1 / Last One / Fast Speed Forward	12
	Cancel / Stop / Alarm Log Button	12

2.2	System Back Panel:	13
	Power Supply.....	13
	Ethernet RJ45-jack.....	13
	USB.....	13
	Power.....	13
	VGA Output.....	13
	Video Input BNC-jacks	13
	TV Monitor Output BNC-jack.....	14
	Audio Input RCA-jack.....	14
	Audio Output Earphone-jack	14
	Input Terminals (Optional)	14
	Output Terminals (Optional)	14
2.3	Hard Disk Installation:.....	14
Chapter 3 : System Setting.....		15
3.1	Setup Main Menu	15
3.2	Time / Display Setup	16
3.3	Camera Setup	17
3.4	Alarm Setup.....	18
3.5	System Setup	20
3.6	Network Setup	21
	Server Setup:	21
	Connection.....	22
	WAN Mode.....	23
	DIAL-UP Mode	24
	DNS Setup	24
	DDNS Setup	25
	User.....	26
	Network Info.....	27
3.7	Input /Output Setup: (Optional)	27
	Output	28
	S.M.A.R.T.(Smart Monitoring, Analysis, and Reporting Technology).....	28
	Input.....	28

3.8	Program	29
3.9	Advanced Setup	30
Chapter 4 :	Record	31
4.1	Activate Record Manually.....	32
4.2	Auto Record.....	33
4.3	Stop Record.....	33
Chapter 5 :	Playback	33
5.1	Assign Time for Playback.....	34
5.2	Date List for Playback:.....	34
5.3	Playback Operation Buttons	35
Chapter 6 :	PIP Function.....	36
6.1	PIP Sub-Window Location Adjustment.....	36
Chapter 7 :	Alarm Log	37
Chapter 8 :	I/O.....	38
8.1	Input Control Setup.....	38
8.2	Output Control Setup.....	39
8.3	Output Control	39
Chapter 9 :	File Backup.....	40
Chapter 10 :	Network Function	41
10.1	Network Setup:	42
10.2	Network Connection Setup:.....	43
10.3	Remote File Search:.....	48
10.4	Remote VGuard N series using IE browser	49
Chapter 11 :	VG Player.....	58
11.1	Playback Control Panel:	59
11.2	Search	61
11.3	Color Configuration.....	61
11.4	Motion Search Setup	62
11.5	Continuous Playback.....	62

11.6	Caption Display Setup	62
11.7	VG to AVI Conversion:	63

Chapter 1 : System Specification

VGuard N series is a new generation embedded DVR system. This system is using the most advanced H.264 compression technique. This technique not only holds the best recording quality and high compression rate. Under the same hard disk sizes, it can save longer video images and audio sounds.

VGuard N series embedded System uses the super high speed DSP IC (Digital signal Processor) for its center of compression. It records by using hardware images compression, of this, it can reach a maximum 30fps (NTSC) or 25fps (PAL) recording speed per channel. Playback of the recording is using the same technique to reach its most efficiency.

1.1 System Hardware Specification:

- Video In (BNC Jacks):
VGN16C: 16 BNC Video In Jacks, **VGN8C:** 8 BNC Video In Jacks,
VGN4C: 4 BNC Video In Jacks
- Audio In (RCA Jacks):
VGN16C-SRT4: 4 RCA Audio In Jacks (Optional 16 RCA Jacks)
VGN8C-SRT4: 4 RCA Audio In Jacks (Optional 8 RCA Jacks)
VGN16C-HRT4: 8 RCA Audio In Jacks, **VGN8C-HRT4:** 4 RCA Audio In Jacks
VGN8C-RT4: 8 RCA Audio In Jacks, **VGN4C-RT4:** 4 RCA Audio In Jacks
- Monitor Output: 1 BNC Jack
- Audio Out: 1 earphone output Jack
- VGA Output: Supports standard VGA D-SUB output jack. Resolution 1024 x 768 at 75Hz.
- Alarm Input (Optional): 4 input terminals, Detectable loop circuit open / short.
- Relay Output (Optional): 4 Output control terminal, AC 125V/12A; 250V/7A; DC 30V/7A

8. Hard Disk: Support 2 IDE Hard disk
9. Backup Function: Supports 2 USB, to connect to USB disks.
10. Ethernet: RJ45 (100/10Mbps Ethernet)
11. Power: AC115V/60Hz/4A, 230V/50Hz/2A (Typical)
12. Weight: 4.5Kg / 5.5Kg (Net /Gross Weight)
13. Size: 20.5cm x 34cm x 19cm (Length x Width x Depth)

1.2 System Function Specification:

1. Technology: H.264 Hardware real time compression /decompression
2. Resolution: 704 x 480 (NTSC) / 704 x 576 (PAL)
3. Monitoring Speed:
 - 16 channels 480 fps(NTSC) / 400 fps(PAL)
 - 8 channels 240 fps(NTSC) / 200 fps(PAL)
 - 4 channels 120 fps(NTSC) / 100 fps(PAL)
4. Recording Speed:
 - VGN16C-SRT4**: 240_{MAX} ~ 200_{MIN} fps(NTSC)/ 200_{MAX} ~ 167_{MIN} fps (PAL)
 - VGN8C-SRT4** : 120_{MAX} ~ 80_{MIN} fps(NTSC) / 100_{MAX} ~ 67_{MIN} fps (PAL)
 - VGN16C-HRT4** : 240fps(NTSC) / 200fps (PAL)
 - VGN8C-HRT4** : 120fps(NTSC) / 100fps (PAL)
 - VGN8C-RT4** : 240fps(NTSC) / 200fps (PAL)
 - VGN4C-RT4** : 120fps(NTSC) / 100fps (PAL)
5. Image Compression Rate: Dynamic Compression Rate = 40:1~240:1
(Automatic Changes depends on the image's moving situation).
Average Dynamic Compression Rate: 40 : 1~2400 : 1
6. Recording Quality: 10 Levels Adjustment available
7. Audio Recording: 24Kbps ADPCM recording mode. Synchronize with Video Recording.
8. Live Audio Monitoring: Support Live Audio Monitoring.
9. Monitor Display: Full Screen, 16 split window display (VGN16C) , 8 split window display (VGN8/16C) , auto scan, 4 split window display at 2/4 pages auto scan (VGN8/16C and 8 split window display 2pages auto scan (VGN16C)
10. Internet Function: Supports TCP/IP functions. Supports Internet / LAN remote monitoring.
11. Multi-task Capability: Supports Recording, Playback, Remote

Monitoring and Live Monitoring at the same time.

12. Sensor Input Trigger Alarm
13. Video Lost Trigger Alarm
14. Motion Image Trigger Alarm (maximum of 4 motion detection areas per channel)
15. Alert Alarm: Sound Alert and relay output
16. Alarm Record Function: The system will start recording with 3-5 seconds pre-alarm after alarm triggered.
17. Alarm Log: Record the alarm activated time, alarm source, also select the time from the alarm log directly for playback.
18. Playback (Search) mode: Playback directly by selected time, search by saved time log, and by alarm log.
19. Playback Speed mode: Fast Speed forward x2, x4, x6_(RT4/HRT4), and x8_(RT4/HRT4). Slow Speed forward /2, /4, /6, /8. Single frame playback, Paused, Forward Skip Playback, Reverse Skip Playback.
20. Playback Display: Full Screen display, 4 split windows display.
21. File Backup Function: Supports USB disk for backup, or retrieving files from appropriate remote software.
22. Playback backup files: Playback using VG Player (V5.4 or above) directly from a computer.
23. Remote monitoring software: Installed **Chateau** (V5.0 or above) on a PC for Remote monitoring or recording.
24. Firmware Update: Firmware update available from our website at www.vguard.net update/ add / alter the software through USB devices.

1.3 Package Content:

Please be cautious when opening up the package to avoid damage to the system.

1. One **VGward N** Series DVR System
2. One Power Cable and IDE Cable
3. One User's manual
4. One CD-ROM
5. 2 IO connections Jack. (Optional with VGIO)
6. Connection cables:
VGN16C-SRT4: 4* BNC jacks video connection cables. 1* RCA

jacks audio connection cables. (Extra audio connection cables are optional).

VGN8C-SRT4: 2* BNC jacks video connection cables. 1* RCA jacks audio connection cables. (Extra audio connection cables are optional).

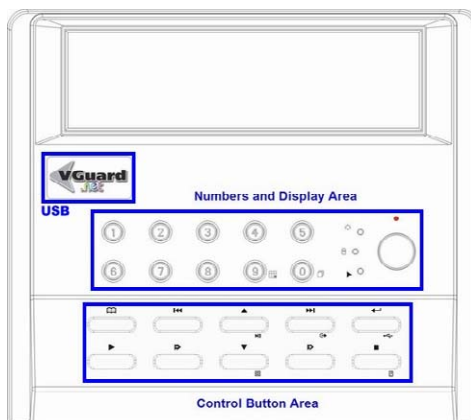
VGN16C-HRT4: 3* BNC jacks video connection cables. 1* RCA jacks audio connection cables.

VGN8C-RT4: 1* RCA jacks audio connection cables.

When you found any shortage item when opened, please contact immediately with the agents, sale representatives or customer service department.

Chapter 2 : System Introduction:

2.1 System Front Panel:



System's front panel includes 'Numbers and Display control Area', and 'Control Button area'. All button arrangements as above. This is mainly used to operate the main system. The functions are as followed:

■ USB

Press once for the panel to open. There is USB application for file download or firmware update.

■ Number 1-8 Buttons

When the number button is press under recording mode, the number of

camera displayed will be according to the number of button pressed.

Under 16 channels model, to select the enlarge images for camera 9-16, you will require to use the split window button (number 9), and switch to the split window images for camera 9-16, When under setting mode, the number button is for setting of number 1-8.

■ **Number 9 Button**

When this button is press under recording mode, depends on the different model, camera display window will be 4 split windows (VGN4C-), Eight Split windows (VGN8C-) and 16 split windows (VGN16C-). When under setting, this button is for setting the number 9.

■ **Number 0 Button**

When this button is press under recording mode, the display images will be: Auto Scan for a single image, or 4 split windows or 8 split windows in different pages. Camera numbers depends on the pages.

■ **Power Indicator** (⚙️ 🟢)

When power is on, this indicator will shown as green.

■ **Recording Indicator** (📹 🔴)

When system is under recording mode, this indicator will be shown as red.

■ **Playback Indicator** (▶️ 🟡)

When system is under playback mode, this indicator will be shown as yellow.

■ **Record/ Switch to Recording Display Button:**

1. When system not under recording status, press of this button will activate recording function immediately.
2. When both recording and playback is functioning: Switching back to the recording images. Detail information will be described later on.

Note: System's defaulted is activating recording. You will require to setup "Stop Recording" under system setup to stop recording.

■ **Setting / List Button**

1. Under system setting: Enter System setting, Save setting.
2. Under playback Operation: Enter Date list mode for playback
3. When activate PIP sub-window: Entering the adjustment of PIP

sub-window location, Save PIP sub-window location.

■ **Leftward Button / Playback Backward**

1. Under normal operation: Move selection leftward, Go to last page.
2. Under playback operation: For playback backward. Each backward 160 frames
3. When adjusting PIP sub-window: Move the PIP sub-window to the left.

■ **Upward button / Step Playback / Pause Playback**

1. Under normal operation: Move selection upward
2. Under playback operation: For step by step playback. Playback of 1 frame then pause playback.
3. When adjusting PIP sub-window: Move the PIP sub-window to the up.

■ **Rightward Button / Playback Forward / Output Control**

1. Under normal operation: Move selection rightward, Go to next page.
2. Under playback operation: For playback forward. Each forward 160 frames
3. When adjusting PIP sub-window: Move the PIP sub-window to the right.
4. Not under playback or setting mode: Active output control button. This will display relay output status, also can stop playing alarm sound. Detail information will be described later on.

■ **Select / Backup Button**

1. Under normal operation: This is for selection and confirm button to select and confirm the correct setting.
2. Not under playback or setting mode: To activate backup file button. Backup the files from system hard disk to USB disk/device, by using the playback software VG Player (V5.4 or above) for playback of the file from normal PC. Detail information will be described later on.

■ **Playback Button**

1. Under normal operation: To activate playback function. Selection of the playback files for playback. Detail information will be described later on.
2. When both recording and playback is functioning: Switching back to the playback images. Detail information will be described later on.

■ Subtract 1 / Next / Slow Speed Playback

1. Under normal operation: Subtract 1 when setting numbers or next one selection button.
2. Under playback mode: Playback speed will be changes each time you press the button to 1/2 → 1/4 → 1/6 → 1/8 slow speed playback

■ / Downward Button / PIP Function

1. Under normal operation: Move selection downward
2. When both recording and playback is functioning: to activate PIP functions; To display both recording and playback images we call it PIP function. PIP sub-window's location can be altered. Detail information will be described later on.

Note: PIP function can only be done when connecting VGA output to VGA monitor. TV output to TV Monitor will not display this function.

■ Add 1 / Last One / Fast Speed Forward

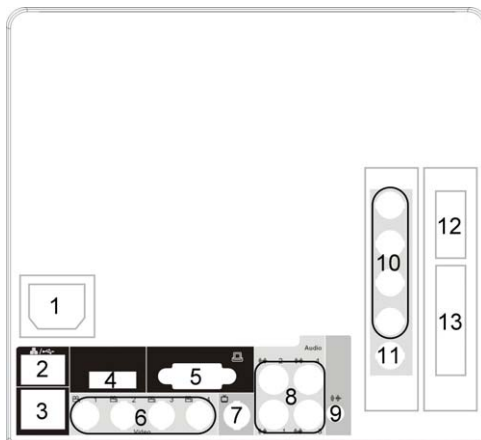
1. Under normal operation: Add 1 when setting numbers or last one selection button
2. Under playback mode: Playback speed will be changes each time you press the button to 2 → 4 → 6 → 8 fast speed playback

■ / Cancel / Stop / Alarm Log Button

1. Under normal operation: To cancel setting
2. Under playback mode: To stop image playback.
3. Not under playback or setting mode: To view alarm log. Detail information will be described later on.

Note: This button is not the stop recording button. Press of this button cannot stop recording. You will have to select the stop recording function from system setting.

2.2 System Back Panel:



System's back panel is mainly for signal connection. Detail information as followed:

■ Power Supply

Mark 1: This is for the power supply input socket. You can directly connect to AC 110V/60Hz or 220V/50Hz.

■ Ethernet RJ45-jack

Mark 2: This is for RJ45 Internet connection socket. This is for 10Mbps/100Mbps Ethernet

■ USB

Mark 3: This system has 2 USB sockets. This is for connecting to USB devices for backup images or update firmware.

■ Power

Mark 4: Power on/off. To turn on/off the system power.

■ VGA Output

Mark 5: VGA Output to connect to VGA monitor.

■ Video Input BNC-jacks

In RT4 System, Mark 6: Video Input 1-4 (**From left to right**); Mark 10: Video Input 5-8 (**From top to bottom**).

In HRT4 System, Mark 6: Video Input 1-4 (**From left to right**); Mark 10 for 3 sets Video Input 5-16 (**From top to bottom**). Set order as red, white black and yellow.

In SRT4 System, Mark 6 for 4 sets Video Input 1-16 (**From right to left**).

Set order as yellow, black, white and red.

■ **TV Monitor Output BNC-jack**

Mark 7: TV output BNC-jack to connect to TV monitor.

■ **Audio Input RCA-jack**

In RT4 System, Mark 8: Audio Input 1-4; Mark 11: Audio Input 5-8. Set order as red, white black and yellow.

In HRT4 System, Mark 8: Audio Input 1-4; Mark 11: Audio Inputs corresponded to camera 9-12. Set order as red, white black and yellow.

In SRT4 System, Mark 8 for 4 sets Video Inputs (**order according to numbers displayed**). Set order as yellow, black, white and red.

■ **Audio Output Earphone-jack**

Mark 9: Audio out jack for live audio monitoring, or audio output when playback saved files with audio.

■ **Input Terminals (Optional)**

Mark 12: Input terminal 1-4, for users to connect to sensor devices. Input signal from top to bottom is **input1, input2, input3, and input4 and ground connection**.

■ **Output Terminals (Optional)**

Mark 13: Relay Output 1-4, for users to connect for controlling of external device. Signal from top to bottom (2 connections for 1 relay output) are **output1, output2, output3 and output4**.

2.3 Hard Disk Installation:

Please take extra notice that the system does not include a hard disk. So before you start operating this system, it is suggested you install a hard disk for recording files. **VGuard N** system has an IDE interface. It can connect 2 IDE hard disk, The setting for the first hard disk is Master and the second as Slave.

Note1: This system is using Linux EXT3 hard disk format. It is suggested to use the un-partitioned and un-formatted hard disk, or use the already formatted to Linux EXT3 format hard disk.

Note2: There is no restriction size for a single hard disk capacity. However, the maximum partition size will be 250GB.

Note3: After a brand new hard disk is installed, this system will automatically partition and format this hard disk. When a hard

disk is over 250GB, system will automatically separate it into 2 or more same partition sizes.

Chapter 3 : System Setting

This is used to setup the system for operation needs. This system includes functions like, motion detection, alarm functions, security functions, Internet functions and I/O control etc. Users can setup the system to suit your needs. Detail information as below:

3.1 Setup Main Menu

```
SETUP  8102 060510 RT4
1.TIME/DISPLAY
2.CAMERA
3.ALARM
4.SYSTEM
5.NETWORK
6.I/O
7.PROGRAM
8.ADVANCE...
```

The first line shown on the main menu: First set of number means the firmware version of this system. Second set of numbers mean the last update date of this firmware. The third set is the system model. System model: RT4, HRT4, SRT4.08 or SRT4.16. Ex..."XXXXX 070130 SRT4.16" means this system is VGN16C-SRT4 last update on 30th Jan 2007.

3.2 Time / Display Setup

TIME/DISPLAY SETUP	
1.DATE	2006/5/8
2.TIME	18:00:08
3.TIME ZONE	GMT+08
4.SYSTEM TIME	ON
5.CAMERA NAME	ON
6.SYSTEM STATUS	ON
7.MAIN+SUB DISPLAY	OFF

Time / Display setup is for setting the system time and display status. User the up and down button to select and press the select button to confirm setting:

- **Date:** Use the leftward and rightward button to select year, month and date. You can also use the number 1-9 and 0 to key in the number directly, (the numbers will automatically move to the left side), or you can use  add,  subtract button for setup.
- **Time:** Setup hour, minutes and seconds. Setting is as above.
- **Time Zone:** Use  add,  subtract button for setup. For example Taiwan's time zone is GMT+08
- **System Time:** The defaulted is on (activate), system will display the system time on the monitor.
- **Camera Name:** Defaulted is on (activate), system will display the camera name on the monitor. Camera name will need to setup under "Camera Setup menu".
- **System Status:** Defaulted is on (activate), system will display system status on the monitor. Mainly is showing the hard disk sizes and hard disk free spaces.

Note: You must stop recording when setting up date, time and time zone.

- **MAIN+SUB DISPLAY :** Defaulted is "OFF". Select a camera after

changing to “On”, or when enlarge one of the camera, this camera will not be enlarge as full screen, instead it will be shown as main screen and other camera images will be shown around the main screen in smaller screen.

3.3 Camera Setup

CAMERA SETUP : CAMERA1	
1.CAMERA NAME	CH1-----
2.ENABLE	ON
3.AUDIO	ON
4.DISPLAY	ON
5.BRIGHTNESS	115
6.CONTRAST	130
7.SATURATION	150
8.HUE	128
9.VIDEO CONFIG DEFAULT	

Camera setup is to setup the information for each camera. Every camera can be set alone with depending on the requirement. The above is an example setting for camera 1. Other cameras can be setup using the same way. Users can use  leftward, /  rightward buttons to changes to different camera setup menu.

Note: When setting up the camera, the images correspondence to the camera will be displayed as full sizes for adjusting brightness, contrast,

saturation and hue. Press  to save the setting.

- **Camera Name:** You can only setup the camera name using English or alphabet. You can use the number button directly for setting or use add or substrate for setting.
- **Enable:** Defaulted is on (activate), if the camera does not connect to a camera, user can disable (OFF) this selection, and then this will not be record.
- **Audio:** Defaulted is on (activate). Audio functions uses 24kbps ADPCM format for recording. File sizes are approximate 10MB per

channel per hour.

- **Display:** Defaulted is on (activate), you can change to off if display not require.
- **Brightness:** Brightness adjustment. Defaulted is 115, adjusting range from 0-255, 0 is the darkest and 255 is the brightness.
- **Contrast:** Contrast adjustment. Defaulted is 130, setting range from 0-225, 0 is the lowest and 255 is the highest.
- **Saturation:** saturation adjustment. Defaulted is 150, setting range from 0-225, 0 is the lowest and 255 is the highest.
- **Hue:** Hue adjustment. Defaulted is 128, setting range from 0-255.
- **Video Configuration Default:** When users want to get back to the defaulted brightness, contrast, saturation and hue, press the

 /  select / confirm button and press  to save the setting.

3.4 Alarm Setup

This system supports alarm functions, which include sensor input trigger alarm, video lost trigger alarm, and motion image trigger alarm.

Alarm setup is to setup the alarm function for each camera. Every camera has its own setting. Below is the setup menu for the camera 1, other cameras can be setup using the same method. Users can use 

leftward,  /  rightward to change to different camera setup menu.

ALARM SETUP : CAMERA1

1.VIDEO LOST CHECK	ON
2.MOTION DETECT	9
3.ALARM SOUND	OFF
4.ALARM INTERVAL	120
5.MASK1	00 00:00 00
6.MASK2	00 00:00 00
7.MASK3	00 00:00 00
8.MASK4	00 00:00 00
9.OUTPUT TRIGGER	-- -- -- --

- **Video Lost Check:** Checking video lost. Defaulted is on (activate) so when video lost, system will trigger alarm.
- **Motion Detect:** Enable or disable motion detection and setup the detection sensitivity. Defaulted sensitivity is 9, its range is from 1-16 or off to disable the motion detection. 1 is the less sensitivity and 16 is the most sensitivity.
- **Alarm Sound:** This is to setup the alarm sound when alarm triggered. Defaulted is off (disable), system's built-in 4 different alarm sound, you can use add, subtract or the number 1-4 to setup different alarm sound or off to disable alarm sound.
- **Alarm Interval:** This is used to setup the alarm interval, defaulted is 120seconds, setting range from 100-999seconds.
- **Mask 1-4: You can setup maximum of 4 detection areas for each camera. Each images is seen as 22 x 15 (NTSC) or 22 x 18 (PAL),** so you can set a maximum of 4 area in (00 00) ~ (22 15) (NTSC) or (00 00) ~ (22 18) (PAL). (00 00) is the top left hand side and NTSC (22 15) /PAL (22 18) is the right bottom side. When there is motion in the masked area, it will trigger alarm. When alarm triggered, it will be save in the alarm log. User can playback the alarm files from the alarm log.
- **Output Trigger:** When alarm triggered, it can be set to control the external alarm device form the output terminals. There are a total of 4

relay output control terminals for selection. This output control terminals is optional.

3.5 System Setup

SYSTEM SETUP	
1.VIDEO MODE	NTSC
2.RECORD SPEED	30
3.VIDEO QUALITY	10
4.SCAN TYPE	QUAD DISPLAY
5.SCAN INTERVAL	3
6.AUTO RECORD	ON
7.LIVE AUDIO	ON
8.ALARM RECORD	OFF
9.VGA-PIP	OFF

- **Video Mode:** Video modes include the selection of NTSC and PAL. Users must change it according to your local video mode. You will need to stop recording before changing the setting.
- **Record Speed:** Maximum recording speed per channel is 30fps NTSC or 25fps PAL.
- **Video Quality:** Video quality range is from 1-10. Quality 10 means the best quality however the largest the recorded file sizes. User's can change the video quality to your needs. However, low quality also will influence the playback quality.
- **Scan Type:** This is to setup the auto scan type. **FULL DISPLAY** (single camera full screen display, recycling for every channels), or **QUAD DISPLAY** (4 split window /2 pages display,), or Eighth Display (as 9 split windows and 4 pages display)
- **Scan Interval:** This is to setup up the interval for auto scan. Defaulted is 3 seconds. Maximum interval time is 99 seconds.
- **Auto Record:** When auto record is set at ON (activate), when system reboot, system will automatically start recording. If this setting is OFF (disable), then user will need to press the record button manually for the system to start recording.

- **Live Audio:** When this is activated, and you had connected audio input to the correspondence cameras, you are able to have live audio monitoring when the sound is connect to a speaker.
- **ALARM RECORD:** When system not under recording mode, after activated of this function, the system will start recording after alarm triggered. Recording time is the time set between alarm intervals with 3-5seconds pre-alarm. Also input points can activate alarm records. Recording time is the signal input time.
- **VGA-PIP:** PIP (Picture in Picture) functions us use to see both record and playback images at once. When it is set at on (activate), press the ▼/□ bottom, there will be a sub-window showing on the VGA monitor. Then both recording and playback images can be see at the same time. Press the bottom again then the sub-window will be disappeared.

Note: PIP function can only support by VGA output connects to VGA monitor. TV monitor does not support this function.

3.6 Network Setup

NETWORK SETUP :	SERVER SETUP
1.HOST NAME	VGN8C-----
2.CONNECT SERVER	ON
3.SERVER	192.168.16.127

4.SERVER PORT	40000
5.DISCONNECT ALM	-- -- -- --

Network Setup is to setup the network connection function. You can setup the system's network connection and also you can setup 4 sets for remote user's name, password, authorization and camera.

You will require setting the "Connect Server" to off before setup/alter Network Setup and Remote User.

■ Server Setup:

When enter this setup, the above server setup pages will be shown.

- ◆ **Host Name:** Host name is used for recognition when connecting

in the Internet. Defaulted host name is VGN8C/VGN16C. Users can change the name easier to recognize. You will require setting the “Connect Server” to “off” before setup/alter the host name.

- ◆ **Connect Server:** System will connect to the server according to the setting when it is set as on. If set at off, then system will not connect to server.
- ◆ **Server:** For Network connection, system will need to connect to the PC running the Server program. Server address is the IP address for that PC. Server IP address can also be a domain name. For Example, the PC running the server program does not have a fix IP address; you can apply a Dynamic Domain Name from the supplier to connect the hosts on the network. Domain name will require DNS setup.
- ◆ **Server Port:** It is suggest setting the communication port for the Server program as defaulted 40000 when setting the remote connection. Please do not change it if not necessary. If alteration is a must, then you will require changing all three communication ports to the same value for VGuard N, Server Program and Remote server for **Chateau V5.0**.
- ◆ **Disconnect Alarm (Output):** When connect server is set as on, if system is not able to make connection to server, an alarm output notice will be made. User will be able to use this output signal to control external alarm equipment. There are 4 sets of relay output for selection. (Relay equipment are optional)

■ Connection

User can use  left, /  right to enter connection setup

NETWORK SETUP :	CONNECTION
1.LISTEN PORT	50000 50000
2.MODE	LAN
3.GET IP	AUTO GET IP

- ◆ **Listen Port:** Listen Ports for the **N Series**, LAN users use the first value; WAN users use the second value. Defaulted value is 50000. Internet connection will require changing the

communication ports. Please refer to Chapter 10 Network Connection Setup.

- ◆ **Mode:** There are three connection modes. LAN mode, WAN mode and Dail-Up mode using (PPPoE).
- ◆ **Get IP:** Under LAN mode, IP setup can be Auto get IP and manually set IP. If the LAN network is with DHCP function, the IP address can be automatically got.

NETWORK SETUP :	CONNECTION
1.LISTEN PORT	50000 50000
2.MODE	LAN
3.GET IP	MANUAL SETUP IP
4.LOCAL IP	000.000.000.000
5.NET MASK	000.000.000.000
6.GATEWAY	000.000.000.000

■ Manual Get IP

Under **LAN Mode**, users can manually setup IP.

Local IP, Net Mask, Gateway: The IP address for Local IP, Net Mask and Gateway for the System.

NETWORK SETUP :	CONNECTION
1.LISTEN PORT	50000 50000
2.MODE	WAN
3.LOCAL IP	000.000.000.000
4.NET MASK	000.000.000.000
5.GATEWAY	000.000.000.000

■ WAN Mode

User with **Fix IP** address can select **WAN Mode**.

Local IP, Net Mask, Gateway: Under WAN Mode, Local IP, Net mask and Gateway setting is the information provided from your ISP.

NETWORK SETUP :	CONNECTION
1.LISTEN PORT	50000 50000
2.MODE	DIAL-UP
3.USERNAME	MANUAL SETUP IP
4.PASSWORD	000.000.000.000
5.AUTO CONNECT	ON

■ DIAL-UP Mode

Users with PPPoE connection can select Dial-Up Mode.

- ◆ **User Name, Password:** Username and password is require to enter when connection. There might not be a small letter available for some systems, User will require putting “+” in front of every letter if the password and username is small letter. For example, user’s name is “chateau”, you will require to enter as +C+H+A+T+E+A+U
- ◆ **Auto Connect:** When activated, system will auto connect when system restarts.

■ DNS Setup

User can use  left, /  right to enter DNS (Domain Name Server) setup. DNS will let the domain name correspond to the correct IP address. If the connected server is a domain name then DNS setup is required.

NETWORK SETUP :	DNS SETUP
1.GET IP	AUTO GET IP

- ◆ **GET IP:** There are **Auto Get IP** and **Manual Setup IP** for setting of DNS IP address. Auto Get IP can be done when a DNS address is assigned under LAN.

NETWORK SETUP :	DNS SETUP
1.GET IP	MANUAL SETUP IP
2.PRIMARY IP	000.000.000.000
3.SECONDARY IP	000.000.000.000

- ◆ **Get IP:** DNS IP can be manually setup.

◆ **Primary IP, Secondary IP:** User can setup 2 sets of DNS IP.

■ DDNS Setup

VGN4/8C-RT4 system don't support DDNS function, this setup page would not be shown. Users can uses  left · /  right button to enter the DDNS (Dynamic Domain Name Server) setup. If the IP for **VGN Embedded DVR** is a real IP in Internet, no matter is a fixed IP or Floating IP, you can apply a Dynamic Domain Name for this **VGN Embedded DVR**. Of which means DDNS will require to be set from **NETWORK SETUP -> CONNECTION -> MODE : WAN or DIAL-UP**. After DDNS is set, when monitoring through IE browser, then IP address is not necessary, domain name will be required.

Firstly, users will require applying for a DDNS account and password and a domain name. There are 4 DDNS suppliers that is supported at this moment, you can select any one of the below

- dyndns.org
- no-ip.com
- freedns.afraid.org
- zoneedit.com

NETWORK SETUP :	DDNS SETUP
1. ENABLE	OFF
2. DOMAIN NAME	----- ----- -----
3. USER NAME	----- -----
4. PASSWORD	----- -----
5. DDNS SERVER	dyndns@dyndns.org

◆ **ENABLE** : Activate DDNS function. When setup as “On”, it will enter DDNS automatically and transfer the IP address in use to DDNS.

- ◆ **DOMAIN NAME** : Please enter the domain name you applied from DDNS supplier.
- ◆ **USER NAME** : Please enter the user name you register with DDNS supplier.
- ◆ **PASSWORD** : Enter the password you register with DDNS supplier.
- ◆ **DDNS SERVER** : Select the DDNS supplier you select.

■ User

User can use  left or /  right buttons to enter the setup pages for remote **user 1 / user 2 / user 3 and user 4** to setup the authorization for remote.

NETWORK SETUP :		REMOTE USER1			
1.USER NAME	AAAA-----				
2.PASSWORD	AAAA-----				
3.SETUP	ON				
4.DOWNLOAD	ON				
5.OUTPUT	OFF				
6.CAMERA1-4	ON	ON	ON	ON	
7.CAMERA5-8	ON	ON	ON	ON	
8.CAMERA9-12	ON	ON	ON	ON	
9.CAMERA13-16	ON	ON	ON	ON	

- ◆ **User Name:** This is to setup the user's name who allows connecting to this system.
- ◆ **Password:** This is to setup the user's password which allows connecting to this system
- ◆ **Setup:** This is to authorize remote user to enter system setup and Video Configuration functions.
- ◆ **Download:** This is to allow remote user to download/retrieve history database from the system.
- ◆ **Output:** This is to allow user to remote control relay output (optional)
- ◆ **Camera 1-4:** This is to display the camera that the remote user is

allowed to monitor. Unauthorized camera will not be displayed.
From left to right are camera 1/ camera 2/ camera 3/ camera4.

- ◆ **Camera 5-8:** This is to display the camera that the remote user is allowed to monitor. From left to right are camera 5/ camera 6/ camera 7/ camera8. (8 channels or above systems support camera 5-8)
- ◆ **Camera 9-12:** This is to display the camera that the remote user is allowed to monitor. From left to right are camera 9/ camera 10/ camera 11/ camera 12. (16 channels system support camera 9-12)
- ◆ **Camera 13-16:** This is to display the camera that the remote user is allowed to monitor. From left to right are camera 13/ camera 14/ camera 15/ camera 16. (16 channels system support camera 13-16)

■ Network Info

User can use  left or /  right buttons to enter the Network Info.

NETWORK SETUP :	NETWORK INFO
1.LOCAL IP	000.000.000.000
2.DNS SERVER	000.000.000.000
3.MAC ADDRESS	000.000.000.000
4.DDNS CONNECT	FAIL

Network Info will display the IP address for System IP, DNS, MAC (Media Access Control). And the DDNS connection status.

3.7 Input /Output Setup: (Optional)

IO SETUP :	OUTPUT
1. OUTPUT1	ON 20
2. OUTPUT2	OFF 30
3. OUTPUT3	ON ---
4. OUTPUT4	--- ---
5. S.M.A.R.T	-- -- --

Input/Output setup is to setup the output status and the input's signal status. Users must setup the output status to correctly control the external devices. Input is to detect the status of the device. When input is triggered, then the system can corresponded according to the setting.

When enter this setup menu, it will be the setup of output. Users can use  leftward, /  rightward to enter the input setup menu.

■ Output

There are 4 output control terminals. Each can be set independently. When output status setup is “---” means no output. If setting is on, means under normal condition relay output open, and if activated, then the relay output short. If the setting is off, then under normal condition, relay output short and if activated, then the relay output open.

■ S.M.A.R.T.(Smart Monitoring, Analysis, and Reporting Technology)

System will auto detect, analysis and reporting the status of HDD. When there is any unusual situation, then an alarm will be outputted. User will be able to use this output signal to control external alarm equipment. There are 4 sets of relay output for selection. (Relay equipment is optional)

■ Input

This system has 4 input terminals. Each input can be set independently. Users can use  leftward, /  rightward to enter the different input setup menu. Setup menu as below:

IO SETUP :		INPUT1
1.	TRIGGER TYPE	---
2.	ALARM SOUND	---
3.	OUTPUT1	---
4.	OUTPUT2	---
5.	OUTPUT3	---
6.	OUTPUT4	---

- ◆ **Trigger Type:** Input terminals are mainly connection to switching devices. The device is separate into No (Open under normal

condition) and NC (Short under normal condition). Wrong setting will cause error action. When input potential is “---“, it means disable. Input potential is “High” will require to use NO (Open under normal condition) and when input potential is “Low”, the NC (Short under normal condition) will be used. It is suggest using the device using NC. This means that when it is triggered, or connection cut off, it will trigger alarm.

- ◆ **Alarm Sound:** This is use to setup the alarm sound when input terminals is triggered. You can use the 4 built-in sounds for setting.
- ◆ **Output 1-4:** This setting is to send out control signal to control external alarm devices when input terminals had been triggered, each input terminals can setup 1-4 output control. Output setting “---“means disable, “ON” means active. Please refer to the output setup instruction above for setting.

3.8 Program

PROGRAM SETUP: PROGRAM 1	
1.ENABLE:	OFF
2.SUN-SAT	OFF OFF OFF OFF OFF OFF OFF
3.BEGIN TIME:	00:00:00
4.END TIME:	00:00:00

Setting of 4 sets of programs for recording. Each set is based on a week time. Setting a same recording time for each program. Enable/disable of each date from Sunday to Saturday can be set independently.

3.9 Advanced Setup

```
ADVANCED SETUP
1.STOP RECORD
2.LOGOUT
3.LOGOUT AND RECORD
4.PASSWORD  -----
5.UPDATE FIRMWARE
6.LOAD DEFAULT
7.FORMAT DVD(OPT)
8.SCAN HDD
9.FORMAT HDD      HDA1      147.4G
```

- **Stop Record:** This system's recording status is not able to stop recording from any button on the front panel. This is for security reason. So you will require entering this setup menu to stop recording.
- **Logout:** This is for security reason. To avoid any changes of the setting from unauthorized person, it is suggested to logout after setting password. When logging in the system then re-enter the password for operating of the system and setting.
- **Logout and Record:** If the user did not setup “Auto Record” function, when log out, system will not be operating and will not be able to start recording even if you press the recording button on the front panel. You can then use this setup to activate recording when log out.
- **Password:** Users can setup the password yourself to avoid any operating from unauthorized person. Please log out after you set the password for it to be valid.
- **Update Firmware:** Users can create a directory name as “firmware” in the USB device and download the update firmware in this directly in a USB device. Connect the USB device to the USB sockets of the system, activate this function, the system will then automatically update the firmware. System will need to reboot (Automatically) to finish firmware update. (Please be aware of the power supply while updating firmware to avoid damaging the operating system of DVR. Damaging of the DVR might not be able to perform normally.)

- **Load Default:** System will be change back to its default value. This would avoid the error setting by the users, which might cause abnormal operating of the system.
- **FORMAT DVD(OPT)** : This is an optional model. This support the burner (DVD burner) by USB interfaces. User can use DVD±R and DVD±RW to backup Video files. It is suggest to format DVD±RW disks on this **VGN Embedded DVR** to make sure this function can work normally. Format will delete all the data on the disks to burn new data into it.
- **SCAN HDD** : Activate this functions can scan the system files in the HDD, then clear or fix the error files.
- **Format HDD:** After installing of the hard disk (Suggest not to partition or format the HDD before installed) system will automatically detect and automatically partition and format the hard disk. When user wants to format it again, this function can be used.

Note: HDD display HDA1/HDB2. “A” means the master HDD (HDD number1). B means the slave HDD (HDD number2). The number 1 means the 1st partition and 2 means the 2nd partition.

Chapter 4 : Record

When system turns on, system will need about 1 minute to boot and then to display images. When system is turned on but without installed with HDD or connected to camera, the below left hand side split window will be displayed:



- **Image Section:** Camera arrangement is from top to bottom, left to right as camera 1-8, a total of 8 image section (VGN8C-RT4).
- **Status Section:** Bottom right hand side is the status section, it display the system time and hard disk status. The above left hand side picture is displayed when hard disk is not installed. When hard disk is installed then it will display the partition, free spaces and total capacity messages as above right hand side pictures.

Note: Hard disk space is calculated as hexadecimal, so 1024 means K, not decimal system. Please be aware the differences.

Each camera images is displayed according to the setting. Detail information as below:

- **Image:** Without camera signal input, the image will be displayed as “VIDEO LOST”. With video input, then image will be displayed.
- **Camera Name:** The camera name will be shown on the top left hand side of the image for every camera.
- **Active :** If  symbol is displayed on the image, this means that this camera is selected (Active). If this camera is with audio recording, you will be able to hear the sound when this camera selected.
- **Record:** When  symbol is displayed, this means that this camera is under recording status.
- **Audio:** If  symbol is displayed, this means that this camera is under audio recording status.
- **Alarm:** If  symbol is displayed, this means that this camera alarm had been triggered. When alarm triggered, system will automatically save it to alarm log for users to check.

4.1 Activate Record Manually

System will start operating according to the setting. If the auto record is set as off under system setting, system will not automatically start recording.

This  record button will need to be pressed to activate recording. You

will be able to see the symbol  or whether the recording indicator from the front panel.

4.2 Auto Record

If the Auto record is set as ON under system setting, system will automatically start recording when turned on.

4.3 Stop Record

This system will not be able to stop recording from any button on the front panel. You will require entering the “ advanced setup ” and selecting the “stop record” to stop recording.

Chapter 5 : Playback

This system is with multi task capability. You can also playback images when recording. But a maximum of 4 images can be played back at once. (channel 1-4 or channel 5-8). Playback image as below:



- **Camera Name:** On playback images, camera name will be shown on the top left hand side of the image for every camera.
- **Active :** If  symbol is displayed on the image, this means that this camera is selected (Active). If this camera is with audio recording, you will be able to hear the sound when this camera selected.
- **Playback:** When  is displayed on the images, this means that this images is playback image.

- **Time display:** On playback images, recording time and date will be display on the right bottom side of the images for every camera.
- **Pause:** When  is displayed, it means that the playback image is under paused.

5.1 Assign Time for Playback

- Press  playback button, then the following menu will be shown:

PLAYBACK	
1. START DATE	2006-05-05
2. START TIME	13 : 00 : 00
3. CAMERA	1 - 4

- Use **up, down, left right, add, subtract, select** buttons to changes the numbers. You can change the playback file start date, start time or camera number. After setting, press the **playback** button again to start playback.

5.2 Date List for Playback:

- Users can also press  button and then press  list button to playback files from the date and time lists.◦

PLAYBACK DATE LIST	
DATE	HDD
2006-05-05	HDA1
2006-05-04	HDA1
2006-05-03	HDA1
2006-05-02	HDA1

- After select the playback date file, the following will be shown:

FILE LIST : 2006-05-05			
START	END	CAMERA	SIZE
13 : 00 : 07	14 : 00 : 09	5-8	565.0M
13 : 00 : 07	14 : 00 : 09	1-4	718.0M
12 : 00 : 05	13 : 00 : 07	5-8	636.1M
12 : 00 : 05	13 : 00 : 07	1-4	590.2M
11 : 00 : 06	12 : 00 : 05	5-8	379.9M
11 : 00 : 06	12 : 00 : 05	1-4	412.9M
10 : 00 : 03	11 : 00 : 06	5-8	172.0M
10 : 00 : 03	11 : 00 : 06	5-8	191.2M

- Use the **up** and **down** button to select the playback time and camera number. Press **select** or **playback** buttons to playback files.

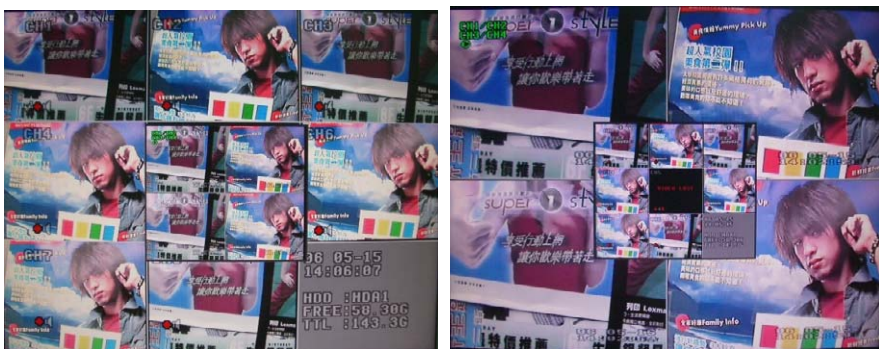
5.3 Playback Operation Buttons

- **Playback backward:** Press the  button to playback 160frames backward each time this button is pressed.
- **Playback forward:** Press  /  button to playback 160frames forward each time this button is pressed.
- **Playback Slow Speed:** Playback speed will be changes each time you press the button  to 1/2 → 1/4 → 1/6 → 1/8 slow speed playback
- **Playback Fast Speed:** Playback speed will be changes each time you press the button  to 2 → 4 → 6 → 8 fast speed playback.
- **Step Playback / Pause:** Each time this  is pressed, a single frame will be played back and then paused.
- **Stop Playback:** Press  /  button to stop all playback images. Playback images will be disappeared and change back to recording images.
- If the record files recorded from alarm records. Because the alarm time is not continually, the system will automatically paused and playback next alarm file only when user press the playback button.

Chapter 6 : PIP Function

PIP functions only support VGA monitor output. This system does not support TV monitor output for PIP function. If user only connects to TV monitoring output, please do not activate this VGA-PIP function.

When system is recording and playing back files at the same time, users can use the **record** and **playback** button to switch between record or playback images. If user requires to display both record and playback images together, then you can use the PIP function to display. Before using the VGA-PIP functions, please activate the “VGA-PIP setting” from the “system setup” to ON.



Press the ▼/☐ PIP button under recording, Main window is the recording images and Sub-Window is the playback images.

If under playback, and this ▼/☐ button is pressed, then the main window will be playback images and sub-window will be recording images.

Press this PIP button again to cancel PIP sub-window. User can also use the record and playback button to switch from main window to sub-window.

6.1 PIP Sub-Window Location Adjustment

When PIP Sub-window is displayed, press the **setup** button, then use **up**, **down**, **left** **right** etc buttons to move PIP sub-window location.



If **cancel** button is pressed after adjustment, then the new location will not be saved. If **select/confirm** button is press after adjustment, then the new location will be saved. When user activates PIP function next time, PIP will display at the new location saved.

Chapter 7 : Alarm Log

This system is with alarm function. There are three ways to trigger alarm. Motion Image Trigger Alarm (Move), Sensor Input Trigger Alarm (Input) and Video Lost Trigger Alarm (Loss). Any alarm triggered wills results an alarm messages in the alarm log. User can then user this alarm log to check for the alarm situation.

Press  Alarm Log button, the following will be displayed:

ALARM LOG DATE LIST	
DATE	HDD
2006-05-05	HDA1
2006-05-04	HDA1
2006-05-03	HDA1
2006-05-02	HDA1
2006-05-01	HDA1
2006-04-30	HDA1
2006-04-29	HDA1

Users can check the alarm log according to the date. After selection, press **select/confirm** button, the following picture will be shown to check for more

detail alarm log:

ALARM LOG : 2006-05-05			
13 : 02 : 25	CAMERA5	LOSS	END
13 : 00 : 25	CAMERA5	LOSS	START
12 : 32 : 35	CAMERA3	MOVE	END
12 : 30 : 35	CAMERA3	MOVE	START
11 : 02 : 32	INPUT1		END
11 : 02 : 02	INPUT1		START
10 : 35 : 24	CAMERA2	LOSS	END

If under the alarm log is recorded because of motion, use the **up** and **down** buttons to select to the record and use **select/confirm** button to select to playback the images.

Also recycling of the hard disk motion or stop recording motion from advance setting will also create an alarm log.

Chapter 8 : I/O

Input control is used to detect the situation of the sensor and then the system will react according to the setting. Output control is the relay output. You can use the relay output to control external devices, which include external alarm devices or even as usage of power switch.

8.1 Input Control Setup

An input terminal is mainly connected to the switch devices. Switching devices is separate into NO (Open: OPEN) and NC (Close: Short). Input detection is also separate into High potential and Low Potential. Inputs itself is high potential, going through the switch device and connect to ground. If the switch device is open, then the input terminal will detect is high potential. If switch is short, input terminal will detect low potential.

When input potential is set at high, it means it is high potential under normal condition, you will require to use NO (Open) device. When sensor triggered, it will become short circuit, and then the input terminal will detect

low potential, then the system will triggered the alarm.

When input potential is set at low, it means it is low potential under normal condition, you will require to use NC (Close) device. When sensor triggered, it will become open circuit, and then the input terminal will detect high potential, then the system will triggered the alarm.

Input terminal's triggered potential means enable when set at "---"

Note: Wrong setting will cause error alarm triggered. It is suggest using the device using NC. This means that when it is triggered, or connection cut off, it will trigger alarm.

8.2 Output Control Setup

Output control is mainly controlling the relay output. Relay output itself is only the on/off device. It is not with any power signal output. So other than connect it to the needed devices, necessary power will need to connect as well.

If output setting is "ON", this means under normal condition, relay output is open loop circuit, after activated; relay output will become close loop circuit.

If output setting is "OFF", this means under normal condition, relay output is close loop circuit, after activated; relay output will become open loop circuit.

Output not controllable when output setup is "---"

8.3 Output Control

When  output control button is pressed, the following picture will be shown:

MUTE/OUTPUT CONTROL	
1. MUTE	
2. OUTPUT1	OFF
3. OUTPUT2	OFF
4. OUTPUT3	OFF
5. OUTPUT4	OFF

1. Use this **output control** to shut off the alarm sound when alarm triggered.
2. Use **up**, **down** buttons to select the outputs and press **select** button to adjust output from OFF-ON or ON-OFF.

Chapter 9 : File Backup

By connecting USB devices (USB flash disk , USB Hard disk and USB DVD Burner) to the system, you will able to backup file. Before you backup the files, please format the USB flash disk and USB Hard Disk as FAT32, otherwise it might not be able to detect from the system. It is suggest to format the DVD disks on this Embedded DVR.

Connect the USB device to the USB sockets at the back of the system, press  USB backup function, the following picture will be shown:

FILE BACKUP DATE LIST	
DATE	HDD
2006-05-05	HDA1
2006-05-04	HDA1
2006-05-03	HDA1
2006-05-02	HDA1
2006-05-02	HDA1

Use **up** and **down** button to select the files date for backup and press the **select** button the following will be shown:

FILE LIST : 2006-05-03			
START	END	CAMERA	LENGTH
14:00:00	15:00:00	1-4	660.0M
14:00:00	15:00:00	5-8	662.3M
13:00:00	14:00:00	1-4	680.4M
13:00:00	14:00:00	5-8	560.0M
12:00:00	13:00:00	1-4	702.3M
12:00:00	13:00:00	5-8	720.4M

Use **up** and **down** button to select the file time and camera number for backup, and press the **select** button the following will be shown:

FILE BACKUP : 2006-05-03	
1. START TIME	14 : 00 : 00
2. END TIME	15 : 00 : 00
CH1	ON
CH2	ON
CH3	ON
CH4	ON

User will require setting the start time and end time then using **up** and **down** button to select the camera number for backup. And press **select** button on top of the camera name. System will then backup files to USB devices. You will then be able to read the file using VG Player (V5.4 or later).

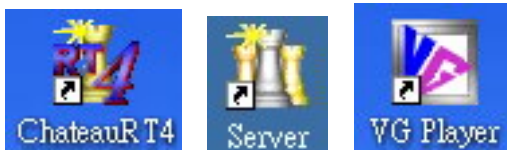
Backup files do not require copying full files. You will only need to set the start time and end time to cut the file for backup to save spaces.

Chapter 10 : Network Function

This system supports network function. You can use the remote software for network connection. The system using the remote software can be installed with digital video surveillance cards and operating remote

monitoring/recording, it can also connect to other DVR embedded Standalone System , it can also monitoring other PC based images to form a full network. (Require using the same version remote software V5.0 or above).

You will require selecting a computer as server, using the CD ROM we provided to install the software. After installation is finished, three main softwares will appear, which include, **ChateauRT4** software, Server software and VG Player software.



10.1 Network Setup:

Before you get on with the network setting and connection, you will require to setup the network environment, otherwise it might cause the system not able to connect to each other.

■ Setup Server (Listening Port: defaulted 40000)

1. Install Server software on a computer, this computer is better to have a fixed IP address.
2. If the server is set on a real IP on internet (etc 211.172.12.34), If the server's IP is 211.172.12.34 and the communication port is 40000, All the network setting for all **VGN embedded DVR** or **Chateau** system address setting on the internet, the Server IP will need to be 211.172.12.34.
3. If the server is set on a virtual IP on internet (etc 192.168.1.11), If the server's IP is 192.168.1.11 and the communication port is 40000, All the network setting for all **VGN embedded DVR** or **Chateau** system address setting under the same LAN, the Server IP will need to be 192.168.1.11
4. If server is set on a virtual IP under LAN (i.e. 192.168.1.11), but also require for Internet uses, then you will require to do **NAPT** (Network Address Port Translation) in your router to correspondence. You can then able to connect to the computer with the server through router under LAN

192.168.1.11:40000 < ----- > 211.172.12.34:40000

This means, the Server IP setting for **VGN embedded DVR** network setup or **Chateau** system address setup:

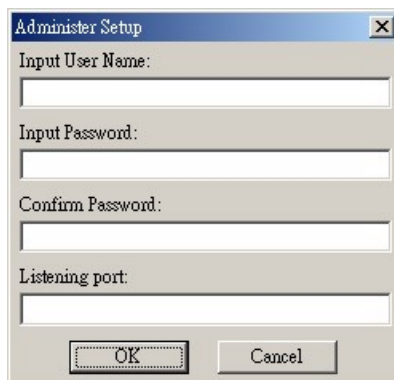
If under Internet to connect to server, all Server IP address is 211.172.12.34. If under the same LAN with the server, then the Server IP address is 192.168.1.11.

10.2 Network Connection Setup:

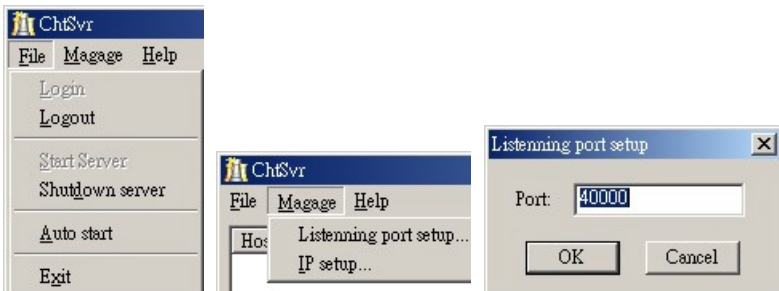
■ Server Program: Please run server program from a computer:

You will require to setup System Administrators name and password when activate Server program. Lost of the password will require to uninstall the software and reinstall.

Server's default communication port is **40000**. If this port would conflict with other programs, user can alter this port setting. To alter port setting: you will require login the server program as administrator, "File->Shutdown Server ->Manage -> Listening port setup". When this port is changed, you will require changing the server port from **network setting** for **VGN Embedded DVR** and also changing the listening port of **Address book** setting for **Chateau** main program to the same value.



The image shows a Windows-style dialog box titled "Administer Setup". It has a standard title bar with a close button (X). Inside the dialog, there are four labeled input fields: "Input User Name:", "Input Password:", "Confirm Password:", and "Listening port:". Each label is followed by a text entry box. At the bottom of the dialog, there are two buttons: "OK" and "Cancel".



■ VGN Embedded DVR network setup

1. If the recording site (**VGN Embedded DVR, and Chateau**) is using real IP address for internet (ie.211.175.21.43)

VGN Embedded DVR network setting is as follow:

Communication Port Setup: LAN: 50000; WAN no special value required.

Chateau Network setting as follow:

Communication Port setup: LAN: 40001; WAN no special value required.

2. If the recording site (**VGN Embedded DVR, and Chateau**) is using a virtual IP address under LAN (i.e. 192.168.2.20) and the monitored site is under the same LAN:

VGN Embedded DVR network setting is as follow:

Communication Port Setup: LAN: 50000; WAN no special value required

Chateau Network setting as follow:

Communication Port setup: LAN: 40001; WAN no special value required

3. If the recording hosts (**VGN Embedded DVR, Chateau Hosts**) is under LAN with virtual IP address (i.e. 192.168.2.20), the remoted host is not under the same LAN and is remote through Internet, then you will require doing **NAPT** (Network Address Port Translation) in your router to correspondence. You can then be able to connect to the **VGN Embedded DVR, Chateau** system for remote through router under LAN.

VGN Embedded DVR network setting as below

IP 192.168.2.20; Listening Port setting: LAN 50000 WAN 60001

IP 192.168.2.21; Listening Port setting: LAN 50000 WAN 60002

IP 192.168.2.22; Listening Port setting: LAN 50000 WAN 60003

Chateau network setting as below

IP 192.168.2.23; Listening Port setting: LAN 40001 WAN 60004

IP 192.168.2.24; Listening Port setting: LAN 40001 WAN 60005

IP 192.168.2.25; Listening Port setting: LAN 40001 WAN 60006

Note: LAN and WAN setting port numbers have to be different on the same host.

Router network setting as below

192.168.2.20:50000 < ----- > 211.175.21.43:60001

192.168.2.21:50000 < ----- > 211.175.21.43:60002

192.168.2.22:50000 < ----- > 211.175.21.43:60003

192.168.2.23:40001 < ----- > 211.175.21.43:60004

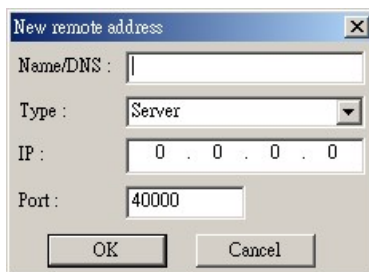
192.168.2.24:40001 < ----- > 211.175.21.43:60005

192.168.2.25:40001 < ----- > 211.175.21.43:60006

■ Chateau Network Connection Setup :

User must setup the network connection for the computer system which installed with **Chateau** program to monitor or monitored (Installed with VGuard Card) by other system.

Enter **System Setup** for **Chateau** program. Select **Address book setting**: Select **New** to add a new server IP address:



The image shows a Windows-style dialog box titled "New remote address". It has a close button (X) in the top right corner. Inside the dialog, there are four labeled fields: "Name/DNS :" followed by an empty text box; "Type :" followed by a dropdown menu showing "Server"; "IP :" followed by a text box containing "0 . 0 . 0 . 0"; and "Port :" followed by a text box containing "40000". At the bottom of the dialog, there are two buttons: "OK" and "Cancel".

Key in a Server name for this system. If the remote site is under DDNS, you will require using the correct dynamic domain name and the IP address must be 0.

There are three types for remote: Server; PC DVR and Embedded DVR. In these, Server supports connection from several remote points from PC DVR and Embedded DVR. PC DVR and Embedded DVR can only support point to point connection.

Port setting for different remote types as below:

New remote address	New remote address	New remote address
Name/DNS : Server	Name/DNS : PC	Name/DNS : VGN8C-RT4
Type : Server	Type : PC DVR	Type : Embedded DVR
IP : 12 . 34 . 56 . 78	IP : 12 . 34 . 56 . 79	IP : 12 . 34 . 56 . 80
Port : 40000	Port : 40001	Port : 50000
OK Cancel	OK Cancel	OK Cancel

Type:	Server	PC DVR	Embedded DVR
Port:	40000	40001	50000

Port for server is based on the Server setup. Defaulted is 40000; PC DVR port is based on the LAN port setup for **Chateau** Software. Defaulted is 40001; Embedded DVR port is based on the LAN port setup for **VGN Embedded DVR**. Defaulted is 50000.

Click  to link to remote access, you should be able to see the list of the Address book setting above. Double click on this TCP/IP list, if network setting is correct, a “**connected**” will be shown. This means you had successfully connected with remote site.

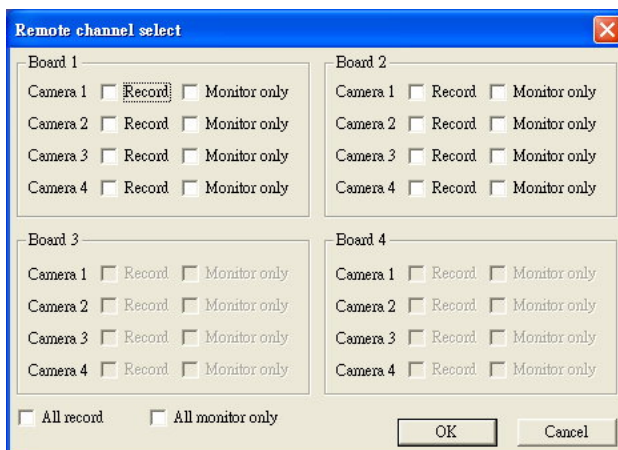
Remote access				
TCP/IP				
Name/DNS	IP Address	Port	Type	Status
Server	12.34.56.78	40000	Server	Connected
PC	12.34.56.79	40001	PC DVR	
VGN8C-RT4	12.34.56.80	50000	Embedded DVR	

From the Host panel on the right hand side of **Chateau** main program, you should be able to see the name for all connected systems.

Select the system name you like to monitor, the split window correspondence to this system will display:



Press  button, if password correct, the following “**Remote Channel Select**” will be shown as below:



Select and choose whether to record or monitor for each camera and click the **OK** button, system will then display according to your selection for remote recording/monitoring:



10.3 Remote File Search:

Under connected status, click



playback button and then click



File mode button, you will be able to search for the database from the system hard disk.

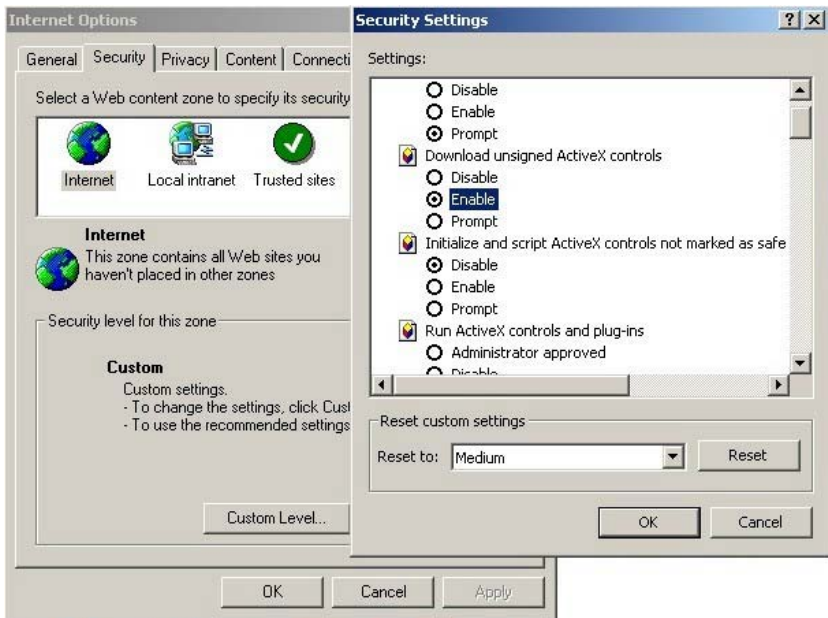
	Open	Download	Export	Delete	Close
Chatwin T4 Host					
NOTEBOOK					
C					
20060309					
D					
20060301					
20060302					
20060303					
20060304					
20060305					
20060306					
20060307					
20060308					
20060309					
20060310					
20060311					
20060312					
20060313					
20060314					
20060315					
20060316					
20060317					
20060318					
20060319					
20060320					
20060321					
20060322					
20060323					
20060324					
20060325					
20060326					
20060327					
20060328					
20060329					
20060330					
20060331					
20060332					
20060333					
20060334					
20060335					
20060336					
20060337					
20060338					
20060339					
20060340					
20060341					
20060342					
20060343					
20060344					
20060345					
20060346					
20060347					
20060348					
20060349					
20060350					
20060351					
20060352					
20060353					
20060354					
20060355					
20060356					
20060357					
20060358					
20060359					
20060360					
20060361					
20060362					
20060363					
20060364					
20060365					
20060366					
20060367					
20060368					
20060369					
20060370					
20060371					
20060372					
20060373					
20060374					
20060375					
20060376					
20060377					
20060378					
20060379					
20060380					
20060381					
20060382					
20060383					
20060384					
20060385					
20060386					
20060387					
20060388					
20060389					
20060390					
20060391					
20060392					
20060393					
20060394					
20060395					
20060396					
20060397					
20060398					
20060399					
20060400					

Enter the file mode, you can search file directly. You can **Open** it for playback or **Download** it for backup.

10.4 Remote VGuard N series using IE browser

The **DVR** require to be monitored, which IP address is 192.168.16.107; or the **ChateauServer** provide with Web Server (Web service function need to be activated), which IP address is 192.168.16.107. (IP address here is an example only, please refer to your own IP address for setup)

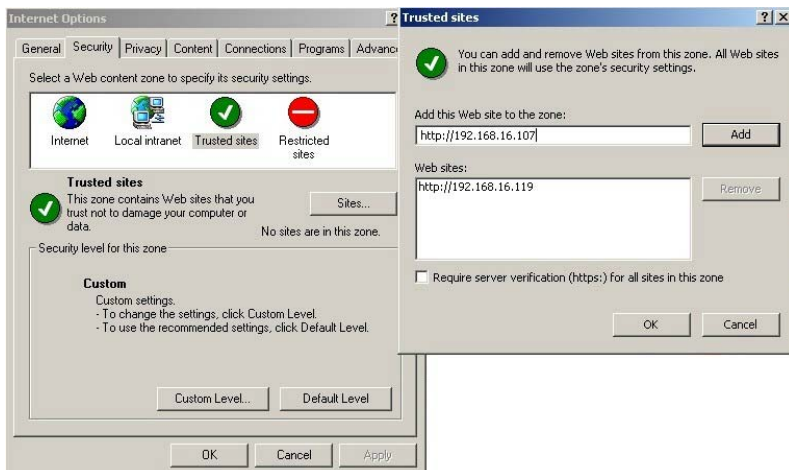
- You will require to setup “Security” from Internet Options
 1. Select “Internet” options
 2. Select “custom level” setup
 3. Enable or prompt “Download Unsigned ActiveX Controls “as below:



4. Also select Enable or prompt for “Initialize and Script ActiveX Control not mark as safe” as below:



5. Select "Trusted Sites"
6. Untick "Require Server Verification (http://) for all sites in this zone"
7. Add the IP address that you would like for monitoring
192.168.16.107 (Please enter the IP address according to your own IP) to "Add this website to the zone" and click **Add** as below:



8. Select "Custom level" setup

9. Enable or prompt “Download Unsigned ActiveX controls”.

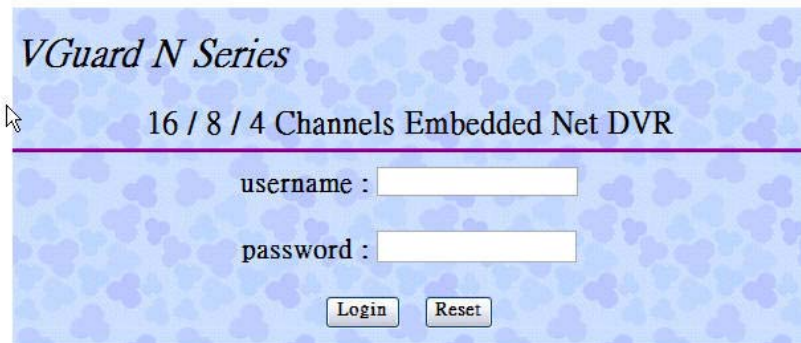


10. Select Enable or prompt for “Initialize and Script ActiveX Control not mark as safe” as below:



■ IE Remote DVR

1. If connect directly to the web address for the **VGN Embedded DVR**, please type in http://192.168.16.107 (The IP address are for demonstration, please setup according to your own IP address). If you are using floating IP address, and had applied DDNS, then you can inset the Domain Name directly. Enter the below window:



VGuard N Series

16 / 8 / 4 Channels Embedded Net DVR

username :

password :

Login Reset

If under the web server function for **ChateauServer**, type in http://192.168.16.107:8080 (Connection to **ChateauServer** use the 8080 communication port, the IP address are for demonstration, please setup according to your own IP address). If you are using floating IP address, and had applied DDNS, then you can inset the Domain Name directly and add “:8080”. Then enter the below windows:



PC-Based / Embedded DVR

Web Camera Service

ENTER

Click **ENTER** and enter the host selection window. If groups are set for **ChateauServer** program, then the group categorize window will be shown to search for the hosts for monitoring. Select the hosts

then enter the window to input user's name and password.

2. Please insert the correct username and password. If both are correct, then the following will be shown:



Host Name : VGN8C

Channel Number : 8

Please select channel :

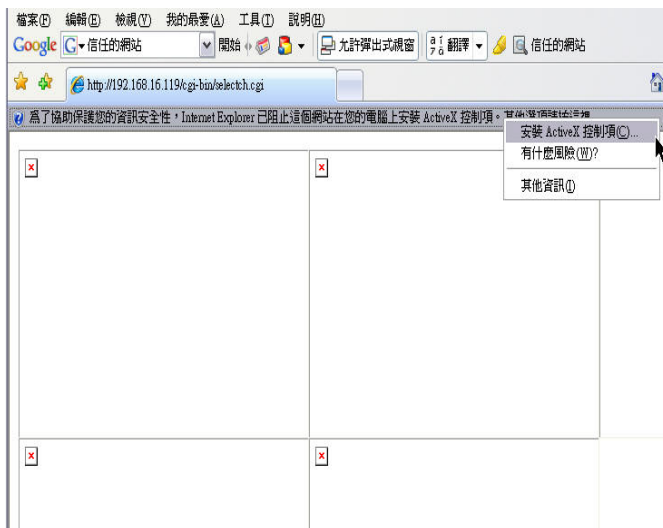
☐ All	
 Ch.01 CH1	☐ Ch.02 CH2
 Ch.03 CH3	☐ Ch.04 CH4
 Ch.05 CH5	☐ Ch.06 CH6
☐ Ch.07 CH7	☐ Ch.08 CH8

SUBMIT CLEAR

 in the above images means that channel three is set as off.

 means that these users are not authorize to remote this camera.

3. Select the camera for remote, and click "submit" button.
4. If you have select for your ActiveX control setting, and this is your first time using IE to remote DVR, The system will require you to install ActiveX. Please follow the instruction and install ActiveX control software. Restart IE and the following will be shown:



5. You will be able to remote monitor VGuard N series using Internet Explorer. Images as bellow:



The above setting is used when DVR is real IP address (ISP will provide fixed/real IP address or the IP address received from ADSL connection), or DVR and the computer using IE browser is under stand LAN network.

If DVR is under Router or IP share, You will require to setup up NAPT (Network Address Prot Translation) from your Router or IP share. As of the

differences of IP share and Router, please check the user's manual for your Router and IP share for setup.

We would set an example here using ASUS's Broadband Router with 4 port Switch (Model RX3041) for an easy explanation of how to remote.

You will require few setup details. Assume that there are 2 DVR (DVR_1 and DVR_2) behind router.

1. IP address (Outside) for this router is 111.112.113.114. (Please setup the IP address using your own network IP address). Setup as below:

ASUS RX3041 Router - Windows Internet Explorer

http://192.168.1.1/

ASUS RX3041 Router

Product Name: ASUS RX3041

Wizard
Status
System
WAN
Connection
LAN
NAT
Firewall
Routing
DHCP
DDNS
Logout

WAN / Static IP Address

WAN Connection Mode

- ☐ Dynamic IP Address: Obtain an IP address automatically from your service provider.
- ☒ Static IP Address: Use a static IP address. Your service provider gives a static IP address to access Internet services.
- ☐ PPPoE: PPP over Ethernet is a common connection method used for xDSL.
- ☐ PPTP: PPTP Tunneling Protocol can support multi-protocol Virtual Private Networks (VPN).
- ☐ L2TP: Layer 2 Tunneling Protocol can support multi-protocol Virtual Private Networks (VPN).

Static IP Address

IP address assigned by your ISP: 111 . 112 . 113 . 114

Subnet Mask: 255 . 255 . 255 . 248

ISP Gateway Address: 111 . 112 . 113 . 119

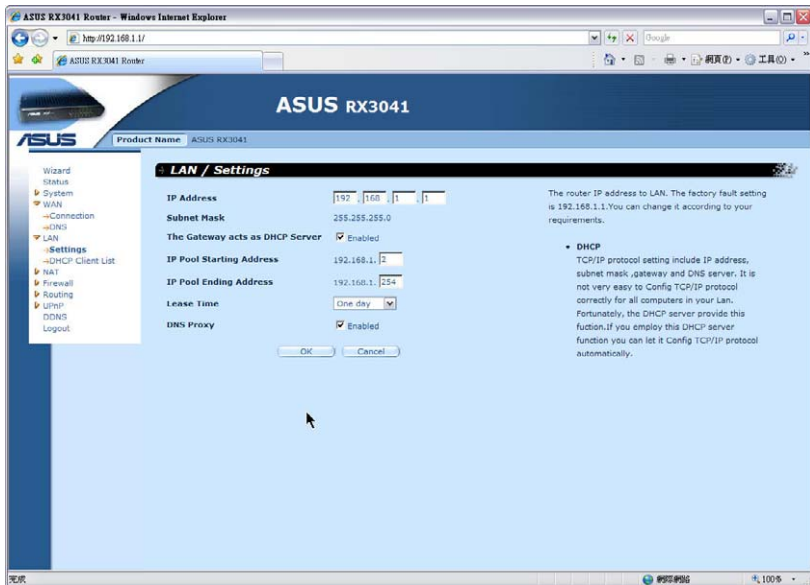
MTU(576-1500): 1500

More IP addresses

Does ISP provide more IP addresses? ☐ Yes

OK Cancel

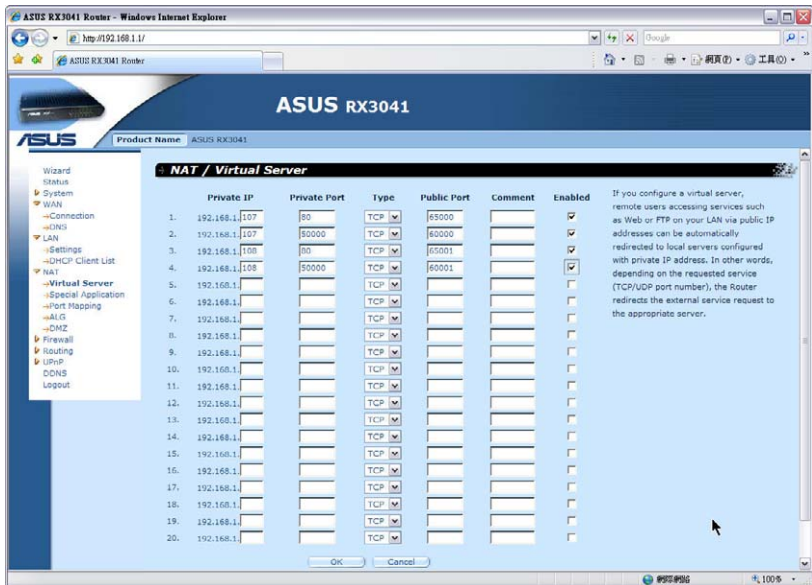
2. IP address (Inside) for the router is 192.168.1.1, and the IP address for all internal network is 192.168.1.2~192.168.1.254 (Please setup the IP address using your own network IP address). Setup as below:



3. DVR_1 IP address 192.168.1.107, Network communication setting port LAN50000, WAN:60000 (Please setup the IP address using your own network IP address)
4. DVR_2 IP address 192.168.1.108, Network communication setting port LAN50000, WAN:60001 (Please setup the IP address using your own network IP address)

Note: Wan setting port numbers have to be different.

5. Router RX3041 will require for the setting as below. User will require to setup according to your own router system. (Private Port 80 is for use as Web Server).



192.168.1.107:80 < ----- > 111.112.113.114:65000
 192.168.1.107:50000 < ----- > 111.112.113.114:60000
 192.168.1.108:80 < ----- > 111.112.113.114:65001
 192.168.1.108:50000 < ----- > 111.112.113.114:60001

After setting, to open the webpage for DVR_1, please type in
<http://111.112.113.114:65000> (Please setup according to your own network address)

To open the webpage for DVR_2, please type in
<http://111.112.113.114:65001> (Please setup according to your own network address)

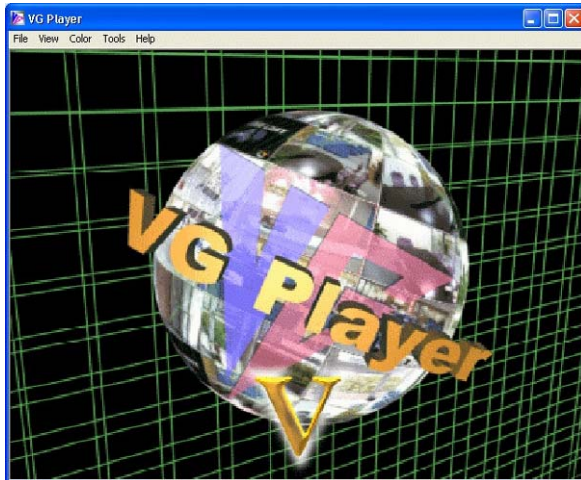
If monitoring through the web server function under **ChateauServer**, and the **ChateauServer** is under LAN, assume that the virtual IP address is 192.168.1.109, the NAT setup is as below:

192.168.1.109:8080 < ----- > 111.112.113.114:65002

Type in <http://111.112.113.114:65002> to connect to the web server function for **ChateauServer**. (Please type in your own IP address)

Chapter 11 : VG Player

A **VG Player program (V5.4 or later)** is included in the CD-ROM we provided. You can playback all the video files **Chateau** program recorded. Run **VG Player** program, the following will be shown:



Playback window can be seeing as 4 areas, which include:

- **Playback Message area:** Display all the information for the playback files; include host name, time and status.



- Host name and time zone
- Recording date for the recorded file
- Operating Status: Status for this program includes playing or pause.

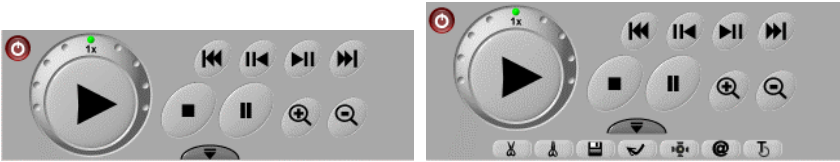
- **Playback Image:** When playing back, except for the images, it also includes time, VGuard card number and camera names etc.

- Display files start time/date.
- Display files end time/date.
- Display the time/date when images recorded.

- **Playback time scroll bar:** Display the time position when playing back files. You can use the mouse to drag the time scroll to search forward or backward, or by using   the function buttons for searching.



11.1 Playback Control Panel:



A Playback control panel consists of Basic Functional Control panel and the extended Functional Control Panel. The picture left above is the basic functional control panel. And when pressing the  button, the extended functional control panel will be shown as right above. Press the button to hide this extended functional control panel.

Each playback button's function is described as follow:



Play: This button functions the same as Play button of traditional video player. When clicking this button during fast or slow playback, the playback speed returns to normal.



Stop: This is to stop the current playback not the playback window.



Pause: This button functions the same as Pause button of traditional video player. By clicking this button during playback, the playback pauses. To continue the playback, re-click this button or playback button



Backward Search: This button function the same as the Rewind button of traditional video player. Click this button, and the video will move backward for a number of frames (160 frames).



Forward Search: This button functions the same as the Forward button of traditional video player. Click this button, and the video moves forward for a number of frames (160 frames).



Backward Single Image: When this button is clicked, the video will moves backward for a single image each time. The image will be hold until play button is clicked. Then the playback speed will be back to normal.



Forward Single Image: When this button is clicked, the video will moves forward for a single image each time. The image will be hold until play button is clicked. Then the playback speed will be back to normal.



Zoom In: You may click the button to enlarge an image from its current size. Each click will enlarge the size by 25%; and click it again to further enlarge it by another 25%; and so on up to the 200%



Zoom Out: You may click the button to reduce an image from its current size by 25%; and click it again to further reduce it by another 25%; and so on down to 100%



Start Video Clip: Click this button during video playback, and the video clipping will begin. The record time will become the start of the video clip.



End Video Clip: Click this button during video playback, and the video clipping will end. The time will become the end of the video clip.



Save Video Clip: Click on this button, System will allow user to type in your own file name and saving directory for the video clip.



Playback Clip: After video is cut, you may playback the cut video by clicking this button.



Snapshot: By clicking this button, you may capture still images during video playback. If there is caption text on the video, the captured images will contain the caption text information. The captured image is stored in BMP format. System will allow user to type in your own file name and saving directory for the snapshot.



Caption: Click the button, the playback window shows the name of the camera, the starting time, ending time and current time for recording



Caption Color: Click the button, the user can change the color of the caption



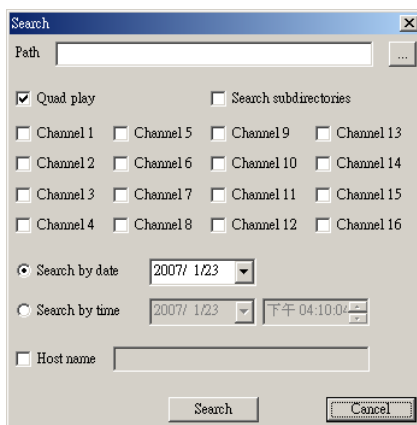
End: Click the button to stop the playback function and to close the playback window



Fast Playback and Slow Playback: Left is the control panel for playback speed. The middle is playing at the speed of 1x. By clicking to each point to the right, the speed will increase from x2, x4, High Speed and Extra High Speed. And by clicking each point to the left, the speed will playback at a speed of 1/2, 1/4, 1/6, and 1/8.

11.2 Search

VG Player also support search for VG files by parameter. Under File command, select the file search and the below will show:



Firstly you can search by directory, select the directory that the recorded file is save, select camera and date or time. Quad playback can select 4 cameras at once for simultaneously playback.

11.3 Color Configuration

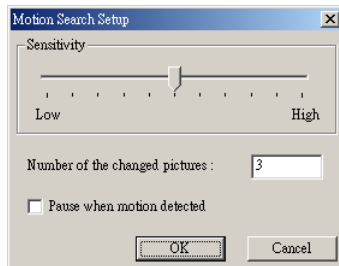
VG Player supports a great color configuration function. You can adjust the image's **Brightness**, **Contrast**, **Saturation** and **Hue** for better image effect.

Under Main Screen, select **Color** and select **Color configuration** function, then the following window will be shown for the configuration.



11.4 Motion Search Setup

This function is similar to **Chateau's** Motion detection function. You can search for the changing of the picture when playback. Under setup command, select Motion Search Setup, and the below will pop up:



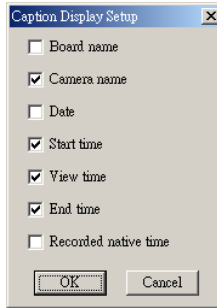
Setup is similar to **Chateau's** motion detection setup. You will require selecting active motion search after setup to active this function. During playback, use the left mouse button to mask an area. Maximum of three mask area. **VG Player** will automatically fast forward until the movement is detected. If **Pause when motion detected** is selected, playback will pause and keep searching until play button is clicked. If **Pause when motion detected** is not selected, when motion detected, playback will be back to normal speed until the movement is stopped. Then fast forward to search for other movement. To cancel all mask area, click once on the left mouse button on the playback images.

11.5 Continuous Playback

Under setup command, select active continually playback. Program will automatically search for the closest file for the same camera under the same directory and automatically playback.

11.6 Caption Display Setup

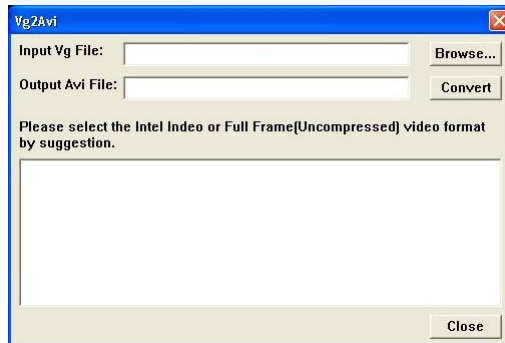
You will be able to setup the caption message types, which are Card name, camera name, start time, time now, end time and local time for the recorded file.



11.7 VG to AVI Conversion:

VG Player supports the conversion of VG Files (Includes VG, VGX and VGZ files) to AVI files. The files then can be playback by most of other playback software.

Firstly, select the **Tool** on the main screen. Then select **VG to AVI** function, the following will be shown:



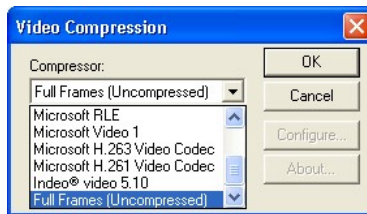
Note: When converting of VG files to AVI files, the data will be taken lots of spaces, if the original VG files are very large, it will consume a great amount of hard disk spaces, and also need longer time for the converting. Therefore, we suggest selecting the required fragment, using the start video clip function to edit into shorter video files, and then proceed with the converting to save time and hard disk spaces.

■ Select Image File

Click the **Browse** button, an open file dialog will pop up. Then search for the folder that the file is in and select the file type (VG, VGX, or VGZ format). The entire selected file name will be shown and just select for the one to be converted.

■ Converting Files

Click the **convert** button; a **converting window** will be pop up. Select the AVI compression format to be converted to proceed with the converting of the files after you click **OK** button. The files after the conversion then can be playback using Windows image player.



Note: The compression program is different in every computer depending on the image software it had installed. Window will provide few standard formats, i.e. Intel Indeo® format, it is recommended to select this format to avoid incapable of playback from other computers.